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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,088	12/30/2003	Mikko Jaakkola	KOLS.083PA	6864
76385	7590	11/16/2010		
Hollingsworth & Funk 8500 Normandale Lake Blvd., Suite 320 Minneapolis, MN 55437				
EXAMINER				
THIER, MICHAEL				
ART UNIT		PAPER NUMBER		
2617				
MAIL DATE		DELIVERY MODE		
11/16/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/748,088

**Applicant(s)**

JAAKKOLA ET AL.

**Examiner**

MICHAEL T. THIER

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 5, 6, 8, 9, 13, 15-17, 19-21, 23-25, 27, 28 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 6, 8, 9, 13, 15-17, 19-21, 23-25, 27, 28, 31, 33 and 35 is/are rejected.
- 7) ☒ Claim(s) 32 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-846)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments regarding the new amendments to the claims have been fully considered but are moot in view of the new grounds of rejection.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 21 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21 and 27 recite a computer readable medium comprising program code. The specification provides no specific definition that clearly distinguishes that the medium *cannot* be a signal or transmission medium. Therefore, the claims can be considered non statutory. The examiner would like to point to the USPTO Official Gazette from week #8 of 2010 (Feb 23, 2010), Volume 1351 page 212 which explains that when the specification is specifically silent (i.e. any disclosure clearly defining that the medium is *not* a transitory medium, the examiner notes that a disclosure simply saying the medium can be hard disk, processor, etc. does not specifically rule out that it can be a transmission medium), the claims are interpreted in their broadest reasonable interpretation, and are typically considered to cover forms of transitory propagating signals. The Gazette further explains that the addition of the term "non-transitory" before the computer readable medium will alleviate any issues with 35 USC 101 rejections,

since the claims would no longer cover non statutory subject matter. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 8, 9, 13, 19, 21, 23-25, 27, 28, 31, 33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa (US 2002/0183062) in view of Halonen (WO 99/45733) in further view of Lee et al. (US 2003/0153312) and McKinnon et al. (US 2003/0135624).

**Regarding claims 1, 9, 21, and 35.** Kubosawa teaches a mobile terminal, method, and computer readable medium comprising: (abstract and figures 1-2)

a processor (figure 1 item 50) configured to check a state of a user interface component automatically in response to detecting change in state of the user interface component (figure 2 item S9, further par. 55 which explains that the input keys are checked for an input of the user, thus the state of a user interface component is checked automatically in response to detecting a change in state of the user interface component, i.e. when a key is pressed by the user, the device will receive a signal indicating which key has been pressed, and thus reads on automatically in response to detecting a change in state of the user interface component, checking the state of the

user interface component because the device will check which key has been pressed immediately in response to a key being pressed, which clearly reads on the limitations as claimed), wherein the interface component is adjustable in an inactive state or in an active state (see figure 2 items S8, S9, and S10, specifically where it judges the instruction of the user and if there is no input it does not handover, and if there is input at step S9, it executes the handover. The idea of judging the instruction of the user and detecting an input reads on the interface being active and inactive, i.e. no input to the user interface is inactive since the user is not actively selecting any key of the interface, while an input is clearly active), and the apparatus is configured to set the inactive state as the state of the interface component when the user interface component is not being actively used by a user, (figure 2 step S9, the user interface component, keys 62 in figure 1, are checked for an input from the user. See par. 55 and 75 which explains how the controller judges whether the user has depressed one of the input keys 62 or not, and thus if a key is input the component is in an actively used state, and if no input key is pressed then the input keys are clearly set in an inactive state. The idea of setting the user interface component to an inactive state is inherent in view of the user interface component being input keys 62. For example, when a key is depressed the controller knows the key is actively used and will perform some action based on that key being pressed, and thus the keys are in an active state. However, when no key is pressed, or after a single key is pressed and then no more keys are again pressed, the user interface component is set as inactive since the controller is not registering any presses of the keys 62, and thus the keys are not actively being used.) and

if the current state of the user interface component is inactive (figure 2 step S9, further par. 75, i.e. the user did not input any instruction using the input keys 62), the processor is configured to prevent, on the basis of the checking, application of a handover (figure 2, step S9, handover is prevented if the user did not use the input keys 62, thus if the user interface component is inactive, the handover is prevented, further see par. 75), configured to select one of at least two available channels to be used for a connection from the apparatus. (par. 30, i.e. the controller controls handover between two communication systems, and thus selects one of at least two available channels)

The examiner notes that Kubosawa teaches initiating the actual handover and not simply a handover algorithm, however, as provided below, Halonen teaches the idea of preventing and initiating a handover algorithm for the reasons set forth below.

Although Kubosawa teaches that if there is no input from the user (figure 2, item S9, no input, i.e. the keypad has no input, thus clearly reading on a user interface component being inactive) the device will not handover, he does not specifically disclose that the handover algorithm will be prevented.

Halonen teaches a handover method and system (title and abstract). He clearly teaches the idea of preventing a handover algorithm (rather than just preventing an actual handover as in Kubosawa) on page 9 at lines 19-21. He clearly states that the hand over algorithm can be stopped, thus "preventing" the handover algorithm. Further see page 3 lines 17-19 which states that an advantage of the method is that it is not necessary to keep checking for a possible hand over in situations, which can clearly be interpreted as the hand over algorithm being "prevented" since the system will not keep

checking for possible hand over. This idea, of preventing the hand over algorithm, when combined with the ideas as in Kubosawa (i.e. if a user interface component is inactive the device will not handover), would allow for one of ordinary skill in the art to clearly see that preventing the entire handover algorithm, rather than just preventing the hand over itself, based on the user interface being inactive would have been obvious at the time of invention. As explained below, it would allow for a system that will not have to unnecessarily keep checking for possible hand over.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Halonen with the teachings as in Kubosawa. The motivation for doing so would have been to create a system and method that is not necessary to keep checking for possible handovers in certain situations. (Halonen page 3 lines 17-20).

However, they do not specifically disclose initiating the handover algorithm in response to detecting the state of the user interface component to change from the inactive to the active state.

Lee teaches a device and system to detect movement of users and prepare a handoff process (title and abstract). He teaches in figure 2 and par. 16 the idea of initiating the handover algorithm in response to detecting the state of the user interface component to change from the inactive to the active state, when he explains figure 2 step 201. The user will power on the wireless communication unit, thus clearly having a user interface component transition from an inactive state to an active state. Then, as seen in figure 2 and explained in par. 16, the handover algorithm (figure 2, the steps

following the power on step is the handover algorithm) is initiated in response to the device being turned on, and thus reading on in response to a user interface component changing from an inactive state to an active state.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Lee with the teachings as in the combination of Kubosawa and Halonen. The motivation for doing so would have been to allow for saving power consumption. (Lee par. 6).

However, Kubosawa, Halonen, and Lee do not specifically disclose wherein the user interface component is screen saver and the state of the user interface component is inactive when the screen saver functionality is applied and the state of the user interface component is active when the screen saver functionality is not applied. Kubosawa simply teaches that the user interface component are keys that the user can press, and that the change from inactive to active can be read as the pressing of a key.

McKinnon teaches a method and system of dynamically obtaining the presence of a user based on state information (title and abstract). He teaches in par. 18 that the device monitors the status of a screen saver to determine when the user is present and using the device, or when the user is not present and the device is inactive. He explains that when the screen saver status is inactive, the user is deemed present (i.e. actively using the device), and when the screen saver is active, the user is deemed not present (i.e. not actively using the device). This idea clearly reads on wherein the user interface component is screen saver (i.e. par. 18, screen saver) and the state of the user interface component is inactive when the screen saver functionality is applied (par. 18,



i.e. user not present) and the state of the user interface component is active when the screen saver functionality is not applied (par. 18, i.e. user present).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of McKinnon with the teachings as in the combination of Kubosawa, Halonen, and Lee. The motivation for doing so would have been to allow for controlling behavior of the communication system based on detecting presence of the user. (McKinnon par. 1)

**Regarding claims 3 and 13.** Kubosawa further teaches the idea of deciding to perform a handover if the mobile station is near another coverage area in par. 38.

**Regarding claims 8 and 19.** Kubosawa further teaches wherein the handover algorithm determines a change between channels of different network technologies. (par. 37, the handover is performed between different communication systems, and a change in channel would thus be inherent.)

**Regarding claim 24.** Kubosawa further teaches that checking the state further comprises checking the state of a mechanical user interface component in figure 1 item 62, which are input keys, (i.e. mechanical components).

**Regarding claims 23, 25, and 27.** Kubosawa further teaches the idea of performing measurements on the current state if the user interface is active. (see figure 2 item S4)

**Regarding claim 28.** Kubosawa further teaches wherein the apparatus is a mobile terminal with a user interface in figure 1.

**Regarding claims 31 and 33.** McKinnon further teaches the state of the screen

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saver is checked by checking state information from a memory location in par. 18, 34, and 35.

6. Claims 5, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa in view of Halonen, Lee, McKinnon, and further in view of Claxton (US 6178388).

**Regarding claims 5, 15, and 16.** Kubosawa, Halonen, Lee, and McKinnon teach the limitations of the previous claims.

However, they do not distinctly disclose wherein the terminal comprises a body portion and a lid which is connected to the body portion and can be moved with respect to the body portion, and wherein the state of the lid in relation to the body portion is checked.

Claxton teaches the idea that flip phones (phones with 1<sup>st</sup> and 2<sup>nd</sup> portions) are well known in the art and that when the flip phone is closed (with key pads covered) they are inactive, and when opened they are active. (column 1 lines 48-59) (i.e. which clearly reads on "wherein the state of the lid in relation to the body portion is checked", and checking the position of the 1<sup>st</sup> portion in relation to the 2<sup>nd</sup>).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Claxton into the teachings of Kubosawa, Halonen, Lee, McKinnon. The motivation for doing so would have been to allow for the mobile device as in Kubosawa to be of the flip phone type, since it is a well-known and highly popular style mobile phone.

7. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa, in view of Halonen, Lee, McKinnon, and further in view of Cowsky, III et al. (US 2004/0204123).

**Regarding claims 6 and 17.** Kubosawa, Halonen, Lee, and McKinnon teach the limitations of the previous claims.

However, they do not distinctly disclose wherein the terminal comprises a keypad and a keypad locking functionality for locking the keypad, whereby the state of the keypad locking is checked.

Cowsky teaches a flip phone with keypad in figure 1, he further teaches the idea of a locking functionality for locking the keypad in par. 2 to allow for making the keys inactive.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the locking function as in Cowsky with the teachings of Kubosawa, Halonen, Lee, and McKinnon. The motivation for doing so would have been to allow for locking the keypads and avoiding inadvertent keystrokes (Cowsky par. 1-2)

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa, Halonen, Lee, McKinnon, and further in view of Harris et al. (US 6871074).

**Regarding claim 20.** Kubosawa, Halonen, Lee, and McKinnon teach the limitations of the previous claims. Kubosawa further teaches the idea of the terminal comprising of a timer in figure 2, see item S3.

However they do not distinctly disclose wherein the terminal comprises a timer configured to determine the state of the user interface as inactive after a predetermined time period has elapsed after the latest user activity.

Harris teaches it is well known for a mobile terminal using a timer to transition the mobile to an off/inactive state upon the given time being elapsed (clearly shown in the abstract).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Harris with the teachings Kubosawa, Halonen, Lee, and McKinnon. The motivation for doing so would have been to increase system performance (abstract).

#### ***Allowable Subject Matter***

9. Claims 32 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. THIER whose telephone number is (571)272-2832. The examiner can normally be reached on Monday thru Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL T THIER/  
Examiner, Art Unit 2617  
10/28/10